



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,567

03/27/2006

Satoshi Hashimoto

20060370A

4782

513 7590 10/17/2008

WENDEROTH, LIND & PONACK, L.L.P.

2033 K STREET N. W.

SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

CHRISS, JENNIFER A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,567	<b>Applicant(s)</b> HASHIMOTO ET AL.	
	<b>Examiner</b> JENNIFER A. CHRISS	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Applicant's Amendments and Accompanying Remarks, filed July 17, 2008, have been entered and have been carefully considered. Claims 1 – 5, 7 – 9 and 11 are amended, claims 6 – 9 are withdrawn and claims 1 – 11 are pending. In view of the amendment to claim 1 requiring that the knot strength is at least 650 MPa, the Examiner withdraws the rejection over Nakano et al. (US 6,170,192) as Nakano et al. only teaches a knot strength of 62 kg/mm<sup>2</sup> (608 MPa) for a monofilament having an inherent viscosity within Applicant's range. The invention as currently claimed is not found to be patentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

3. Claim 1 remains rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 – 5 and 10 – 11 remain rejected as being dependent on rejected claim 1.
4. Claim 1 is indefinite for claiming properties such as knot strength and the twist index instead of chemical or structural features or methods to obtain the chemical or structural features. It has been held that claims are indefinite for claiming the invention in terms of physical properties rather than the chemical or structural features that

Art Unit: 1794

produce said properties. *Ex parte Slob*, 157 USPQ 172, states, "Claims merely setting forth physical characteristics desired in an article, and not setting forth **specific** composition which would meet such characteristics, are invalid as vague, indefinite, and functional since they cover any conceivable combination of ingredients either presently existing or which might be discovered in the future and which would impart said desired characteristics." Also, "it is necessary that the product be described with **sufficient particularity** that it can be identified so that one can determine what will and will not infringe." *Benger Labs, Ltd v. R.K. Laros Co.*, 135 USPQ 11, *In re Bridgeford* 149 USPQ 55, *Locklin et al. v. Switzer Bros., Inc.*, 131 USPQ 294. Furthermore, "Reciting the physical and chemical characteristics of the claimed product will not suffice where it is not certain that a sufficient number of characteristics have been recited that the claim reads only on the particular compound which applicant has invented." *Ex parte Siddiqui*, 156 USPQ 426, *Ex parte Davission et al.*, 133 USPQ 400, *Ex parte Fox*, 128 USPQ 157. Furthermore, it is necessary that the product be described with sufficient particularity that it can be identified so that one can determine what will and will not infringe.

### ***Claim Rejections - 35 USC § 102/103***

5. Claims 1 – 2, 4 – 5 and 10 remain rejected under 35 U.S.C. 102(a), 102(b) and 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Endo (US 4,302,556).

Endo et al. is directed to an improved polyvinylidene fluoride filament (Abstract)

Art Unit: 1794

useful in the production of fishing lines (column 5, lines 45 – 50).

As to claim 1, Endo et al. teach in Example 2 a polyvinylidene fluoride filament comprising a polymer blend of two inherent viscosity polyvinylidene fluorides having a blended inherent viscosity of 1.51 dl/g. The filaments have a tensile strength of 87.0 kg/mm<sup>2</sup> and knot strength of 69.3 kg/mm<sup>2</sup> (679.6 MPa). (column 4, lines 30 – 55). The Examiner submits that the inherent viscosity and the knot strength are within Applicant's claimed range.

As to claim 5, Endo et al. teach that the resulting filament in Example 2 has a diameter of 297 microns (column 4, lines 30 – 55).

As to claim 10, Endo et al. teach that the filament is useful as a fishing line (column 5, lines 45 – 50).

As to claims 1 – 2 and 4, Endo et al. teach the claimed invention above but fails to teach a twist index of at least 0.90, a twist index of at least 0.92, a knot elongation of 16 - 25% and a Young's modulus of 1500 - 3500 MPa. It is reasonable to presume the discussed properties are inherent to Endo et al. Support for said presumption is found in the use of like materials (i.e. a vinylidene fluoride monofilament having an inherent viscosity of 1.51 dl/g and a knot strength of 679.6 MPa) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Endo et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

6. Claims 1 – 5 and 10 remain rejected under 35 U.S.C. 102(a), 102(b) and 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sato et al. (US 2003/0004292 A1).

Sato et al. is directed to a vinylidene fluoride resin monofilament for use as a fishing line (Title and page 1, [0002]).

As to claims 1 and 3, Sato et al. teach in Comparative Example 6 a monofilament with sheath-core construction of respective vinylidene fluoride resins of inherent viscosity of 1.3 and 1.55 (page 4, [0053]); the core having an inherent viscosity of 1.55 dl/g is equated to Applicant's "a vinylidene fluoride resin having an inherent viscosity of at least 1.40 dl/g". Sato et al. teach that the resulting monofilament has a knot strength of 66.3 kg/mm<sup>2</sup> (page 5, Table 1) which is equivalent to 650.2 MPa.

As to claim 4, Sato et al. teach in Comparative Example 6 that the knot elongation is 19% (page 5, Table 1), which lies in Applicant's claimed range.

As to claim 5, Sato et al. teach in Comparative Example 6 that the diameter is 297 microns (page 5, Table 1), which overlaps with Applicant's claimed range.

As to claim 10, Sato et al. teach that the monofilament is used as a fishing line (page 1, [0002]).

As to claims 1 – 2 and 4, Sato et al. teach the claimed invention above but fails to teach a twist index of at least 0.90, a twist index of at least 0.92 and a Young's modulus of 1500 - 3500 MPa. It is reasonable to presume the discussed properties are inherent

Art Unit: 1794

to Sato et al. Support for said presumption is found in the use of like materials (i.e. a vinylidene fluoride monofilament having an inherent viscosity of 1.55 dl/g and a knot strength of 650.2 MPa) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Sato et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

### ***Claim Rejections - 35 USC § 103***

7. Claim 11 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (US 4,302,556) in view of Boese (US 3,903,635).

Endo et al. teach that the filament can be used as a fishing line but does not specifically indicate that the fishing line is in a form of being wound around a spool.

Boese is directed to a convertible fishing reel (Title). Boese discusses a typical fishing rod assembly having a rod with a handle portion and the fishing reel is provided with a line spool for storage of a desired length of fishing line which comes off the spool and is directed through an eyelet. The fishing reel is provided with a crank handle to effect manual rotation of the line spool for the purpose of reeling the line in or out (column 2, lines 1 - 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the fishing line of Endo on a spool as suggested by Boese motivated by the desire to control the length of the line and to store the remaining portion of fishing line while fishing.

8. Claim 11 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US 2003/0004292 A1) in view of Boese (US 3,903,635).

Sato et al. teach that the filament can be used as a fishing line but does not specifically indicate that the fishing line is in a form of being wound around a spool.

Boese is directed to a convertible fishing reel (Title). Boese discusses a typical fishing rod assembly having a rod with a handle portion and the fishing reel is provided with a line spool for storage of a desired length of fishing line which comes off the spool and is directed through an eyelet. The fishing reel is provided with a crank handle to effect manual rotation of the line spool for the purpose of reeling the line in or out (column 2, lines 1 - 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the fishing line of Sato et al. on a spool as suggested by Boese motivated by the desire to control the length of the line and to store the remaining portion of fishing line while fishing.

### ***Response to Arguments***

9. Applicant's arguments filed July 17, 2008 have been fully considered but they are not persuasive.

10. Applicant traverses the rejection of claims 1 – 5, 10 and 11 as being indefinite under 112, second paragraph. Applicant argues that MPEP 2173.05(t) states that a compound of unknown structure may be claimed by a combination of physical and



Art Unit: 1794

chemical characteristics. Applicant asserts that claim is not indefinite merely for claiming a combination of physical and chemical characteristics. The Examiner submits that the claim is not indefinite due to the claiming a combination of physical and chemical characteristics but because the claimed physical characteristics are not described with sufficient clarity and particularity that one skilled in the art could distinguish them from other similar products. Applicant recites compounds by what it is desired that they do rather than what they are and the various parameters set forth in the claims are not such that they can be relied upon to define a single product only. Applicant has included with the Remarks a copy of Section 5.36 of PCT International Search and Preliminary Examination Guidelines and points to a part which indicates that ""5.36 ... Definition of a product solely by its parameters may be appropriate in those cases where the invention cannot be adequately defined in any other way, provided that those parameters can be clearly and reliably determined..., by indications in the description..." The Examiner submits that the Applicant has misconstrued the passage from the PCT Search and Examination Guidelines. The Examiner submits that the document is indicating that if a property is claimed, the means to measure the property must be known in the art or described with enough sufficiency in the Specification. In this particular case, it is the position of the Examiner that the product can be adequately described in another way, in particular, by the method used to create the monofilament with Applicant's claimed properties. As shown by Applicant's discussion of Examples and Comparative Examples in the remarks and Applicant's comment on page 10 of the remarks that the claimed invention (e.g. claimed properties) are achieved by a process such as that

Art Unit: 1794

recited in unexamined claim 6, the claimed product can vary significantly due to changes in the processing parameters. As such, the Examiner submits that the disclosed methods would be appropriate for including in the claim language and would provide the necessary details to identify the claimed products in such manner as to distinguish them from similar known compounds. The rejection is maintained.

11. Applicant argues that Example 2 of Endo et al. which was relied upon in the rejection does not have a twist index of at least 0.90 as claimed. Applicant indicates that Example 2 of Endo et al. is comparable to the process of Comparative Example 2 in Applicant's Specification which shows that the monofilament has a lower twist index of 0.87. The Examiner does not find this to be persuasive as the Comparative Example 2 in many ways is not comparable to Example 2 of Endo et al. For example, Endo et al. is a sheath-less monofilament and Comparative Example 2 is a sheath-core monofilament. Additionally, Example 2 of Endo et al. uses a first stretch ratio of 5.6 and second stretch ratio of 1.2 (with a total stretch ratio of 6.72) while Comparative Example 2 uses a first stretch ratio of 5.8 and 1.06 (with a total stretch ratio of 6.17). Also, the relaxations are not the same. The Examiner submits that the Applicant cannot accurately assert that the twist index of Example 2 of Endo et al. is 0.87. The Applicant has not met the burden to show that the Example 2 of Endo et al. does not have the claimed twist index. It should also be noted that Example 3 of Endo et al. could also read on Applicant's claim although the exact inherent viscosity of the monofilament is unclear as it is made of a blend of 1.85 dl/g and 0.90 dl/g vinylidene fluoride polymers. The rejection is maintained.

Art Unit: 1794

12. In regards to the rejection as anticipated by and/or obvious over Sato et al., the Examiner is now relying on the results from Comparative Example 6 for Applicant's new claim limitation of a knot strength of at least 650 MPa as Example 1 of Sato et al. only discusses a monofilament with a knot strength of 635 MPa. Applicant has indicated in the arguments that the monofilament of Example 1 of Sato et al. has a twist index of 0.87 which is lower than the claimed 0.90. While not conceding that Applicant's assertion regarding the twist index of Example 1 is correct, the Examiner submits this argument is moot as Applicant has amended the claim such that Example 1 is no longer applicable.

13. In regards to the rejection over Nakano et al., the Examiner agrees and withdraws the rejection as noted above as Nakano et al. only teaches a knot strength of  $62 \text{ kg/mm}^2$  (608 MPa) for a monofilament having an inherent viscosity within Applicant's range.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1794

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Chriss/  
Examiner, Art Unit 1794

/J. A. C./  
Examiner, Art Unit 1794